



# SEQUENCE LISTING

<140> Liang, Jihong  
Shah, Dilip Maganlal  
Wu, Yonnie S.  
Rosenberger, Cindy A.  
Hakimi, Salim

<120> Antifungal Polypeptide and Methods for Controlling Plant Pathogenic Fungi

<130> 11899.0193.DVUS02

<140> 10/010,731

<141> 2001-11-13

<150> 09/003,198

<151> 2000-06-07

<160> 19

<170> PatentIn version 3.2

<210> 1

<211> 43

<212> PRT

<213> Alfalfa

<220>

<221> misc\_feature

<222> (40)..(41)

<223> Xaa can be any naturally occurring amino acid

<400> 1

Arg Thr Cys Glu Asn Leu Ala Asp Lys Tyr Arg Gly Pro Cys Phe Ser  
1 5 10 15

Gly Cys Asp Thr His Cys Thr Thr Lys Glu Asn Ala Val Ser Gly Arg  
20 25 30

Cys Arg Asp Asp Phe Arg Cys Xaa Xaa Thr Lys  
35 40

<210> 2

<211> 45

<212> PRT

<213> Alfalfa

<400> 2

Arg Thr Cys Glu Asn Leu Ala Asp Lys Tyr Arg Gly Pro Cys Phe Ser  
1 5 10 15

Gly Cys Asp Thr His Cys Thr Thr Lys Glu Asn Ala Val Ser Gly Arg  
20 25 30

Cys Arg Asp Asp Phe Arg Cys Trp Cys Thr Lys Arg Cys  
35 40 45

<210> 3  
<211> 33  
<212> DNA  
<213> Artificial sequence

<220>  
<223> Oligonucleotide

<220>  
<221> misc\_feature  
<222> (16)..(16)  
<223> N = inosine

<220>  
<221> misc\_feature  
<222> (19)..(19)  
<223> D = A or G or T

<220>  
<221> misc\_feature  
<222> (22)..(22)  
<223> N = inosine

<220>  
<221> misc\_feature  
<222> (24)..(24)  
<223> K = G or T

<220>  
<221> misc\_feature  
<222> (25)..(25)  
<223> D = A or G or T

<220>  
<221> misc\_feature  
<222> (28)..(28)  
<223> D = A or G or T

<220>  
<221> misc\_feature  
<222> (31)..(31)  
<223> D = A or G or T

<400> 3  
gggaattcgg atccancadc anckdaadtc dtc

33

<210> 4  
<211> 30  
<212> DNA  
<213> Artificial sequence

<220>  
<223> Oligonucleotide

<220>  
<221> misc\_feature  
<222> (18)..(29)  
<223> N = inosine

<400> 4  
gggaattcgg atccgggngg ggnngggngg

30

<210> 5  
 <211> 200  
 <212> DNA  
 <213> Alfalfa

<220>  
 <221> misc\_feature  
 <222> (17)..(17)  
 <223> N = A or C or G or T

<400> 5  
 gggggggggg ggggggncag gcttatgctt cctcttcttg gttctctttg ttgcacaaga 60  
 aattgtggtg acagaagcca gaacatgtga gaatttggca gataaatata ggggaccatg 120  
 ctttagtggt tgtgacactc actgcacaac caaagagaac gcagttagtg gaaggtgtag 180  
 ggacgacttc cgctgctgct 200

<210> 6  
 <211> 293  
 <212> DNA  
 <213> Alfalfa

<220>  
 <221> misc\_feature  
 <222> (17)..(265)  
 <223> N = A or C or G or T

<400> 6  
 gggggggggg ggggggntgt caaacacaca cataacacat aagtgaccgt gagtcattaa 60  
 atttatatat attcatcaat ctaatcaaac tatggagaag aaatcactag ctggcttatg 120  
 cttcctcttc ctggttctct ttgttgaaca agaaattatg gtgaccgagg cagctacttg 180  
 tgagaatttg gctaacacat acaggggacc atgcttcggt ggttgtgact ttcactgcaa 240  
 aaccaaagaa cacttactta gcggnagggt cagggacgac ttccgctgct gct 293

<210> 7  
 <211> 33  
 <212> DNA  
 <213> Artificial sequence

<220>  
 <223> Oligonucleotide

<220>  
 <221> misc\_feature  
 <222> (17)..(17)  
 <223> D = A or G or T

<220>  
 <221> misc\_feature  
 <222> (19)..(20)  
 <223> B = C or G or T

```

<220>
<221> misc_feature
<222> (22)..(25)
<223> N = inosine

<220>
<221> misc_feature
<222> (28)..(28)
<223> B = C or G or T

<220>
<221> misc_feature
<222> (31)..(31)
<223> D = A or G or T

<400> 7
gggaattcgg atccgadabb tngcngabaa dta
33

<210> 8
<211> 32
<212> DNA
<213> Artificial sequence

<220>
<223> Oligonucleotide

<400> 8
gggaattcgg atcctttttt tttttttttt tt
32

<210> 9
<211> 327
<212> DNA
<213> Alfalfa

<220>
<221> misc_feature
<222> (244)..(305)
<223> N = A or C or G or T

<400> 9
gagaatttgg cggataagta taggggacca tgcttttagtg gttgtgacac tcactgcaca 60
accaaagaga acgcagtttag tggaagggtgt agggatgact ttcgttggtta gtgtactaaa 120
agatgttaaa tggatctcct ccaacatcaa gatgtgcatg gaatagtctt tataataaaa 180
ctaaataaat aaaatgcacg cagtatagct acaacttcac ctatatatat gtactcaata 240
tcgngcataa cgtattagtt atgcacttct atcatatgga ataaacatca ataagtaatt 300
tcgtntccaa aaaaaaaaaa aaaaaaaa 327

<210> 10
<211> 507
<212> DNA
<213> Alfalfa

<220>
<221> misc_feature
<222> (17)..(485)
<223> N = A or C or G or T

```

<400> 10  
 gggggggggg ggggggntgt caaacacaca cataacacat aagtgaccgt gagtcattaa 60  
 atttatatat attcatcaat ctaatcaaac tatggagaag aaatcactag ctggcttatg 120  
 cttcctcttc ttggttctct ttgttgaca agaaattgtg gtgacagaag ccagaacatg 180  
 tgagaatttg gcagataaat ataggggacc atgctttagt ggttgtagaca ctactgcac 240  
 aaccaaagag aacgcagtta gtggaaggtg tagggacgac ttccgctgct ggtgtactaa 300  
 aagatgttaa atggatctcc tccaacatca agatgtgcat ggaatagtct ttataataaa 360  
 actaaataaa taaaatgcac gcagtatagc tacaacttca tctatatata tgactcaata 420  
 tcgngcataa cgtattagtt atgcacttct atcatatgga ataaacatca ataagtaatt 480  
 tcgtntccaa aaaaaaaaaa aaaaaaa 507

<210> 11  
 <211> 62  
 <212> DNA  
 <213> Artificial sequence

<220>  
 <223> Oligonucleotide

<400> 11  
 ggggatccca atctaataaa actatggaga agaaatcact agctggctta tgcttctct 60  
 tc 62

<210> 12  
 <211> 47  
 <212> DNA  
 <213> Artificial sequence

<220>  
 <223> Oligonucleotide

<400> 12  
 ggggatcctt aacatctttt agtacaccag cagcggaagt cgtccct 47

<210> 13  
 <211> 250  
 <212> DNA  
 <213> Alfalfa

<400> 13  
 ggggatccca atctaataaa actatggaga agaaatcact agctggctta tgcttctct 60  
 tcttggttct ctttgttgca caagaaattg tggtagaca agccagaaca tgtgagaatt 120  
 tggcagataa atatagggga ccatgcttta gtggttgtaga cactcactgc acaaccaaag 180  
 agaacgcagt tagtggaagg ttagggacg acttccgctg ctggtgtact aaaagatgtt 240  
 aaggatcccc 250

<210> 14  
 <211> 40  
 <212> PRT  
 <213> Alfalfa

<400> 14

Ala Thr Cys Glu Asn Leu Ala Asn Thr Tyr Arg Gly Pro Cys Phe Gly  
 1 5 10 15

Gly Cys Asp Phe His Cys Lys Thr Lys Glu His Leu Leu Ser Gly Arg  
 20 25 30

Cys Arg Asp Asp Phe Arg Cys Cys  
 35 40

<210> 15  
 <211> 72  
 <212> PRT  
 <213> Alfalfa

<400> 15

Met Glu Lys Lys Ser Leu Ala Gly Leu Cys Phe Leu Phe Leu Val Leu  
 1 5 10 15

Phe Val Ala Gln Glu Ile Val Val Thr Glu Ala Arg Thr Cys Glu Asn  
 20 25 30

Leu Ala Asp Lys Tyr Arg Gly Pro Cys Phe Ser Gly Cys Asp Thr His  
 35 40 45

Cys Thr Thr Lys Glu Asn Ala Val Ser Gly Arg Cys Arg Asp Asp Phe  
 50 55 60

Arg Cys Trp Cys Thr Lys Arg Cys  
 65 70

<210> 16  
 <211> 67  
 <212> PRT  
 <213> Alfalfa

<400> 16

Met Glu Lys Lys Ser Leu Ala Gly Leu Cys Phe Leu Phe Leu Val Leu  
 1 5 10 15

Phe Val Glu Gln Glu Ile Met Val Thr Glu Ala Ala Thr Cys Glu Asn  
 20 25 30

Leu Ala Asn Thr Tyr Arg Gly Pro Cys Phe Gly Gly Cys Asp Phe His  
 35 40 45

Cys Lys Thr Lys Glu His Leu Leu Ser Gly Arg Cys Arg Asp Asp Phe  
 50 55 60

Arg Cys Cys  
 65

<210> 17  
 <211> 72  
 <212> PRT  
 <213> Pea

<400> 17

Met Glu Lys Lys Ser Leu Ala Cys Leu Ser Phe Leu Leu Leu Val Leu  
 1 5 10 15

Phe Val Ala Gln Glu Ile Val Val Ser Glu Ala Asn Thr Cys Glu Asn  
 20 25 30

Leu Ala Gly Ser Tyr Lys Gly Val Cys Phe Gly Gly Cys Asp Arg His  
 35 40 45

Cys Arg Thr Gln Glu Gly Ala Ile Ser Gly Arg Cys Arg Asp Asp Phe  
 50 55 60

Arg Cys Trp Cys Thr Lys Asn Cys  
 65 70

<210> 18  
 <211> 189  
 <212> DNA  
 <213> Alfalfa

<400> 18  
 ctggccttatg cttcctcttc ttggttctct ttgttgacaca agaaattgtg gtgacagaag 60  
 ccagaacatg tgagaatttg gcagataaat ataggggacc atgctttagt ggttgatgaca 120  
 ctcaactgcac aaccaaagag aacgcagtta gtggaagggtg tagggacgac ttccgctgct 180  
 gctggatcc 189

<210> 19  
 <211> 282  
 <212> DNA  
 <213> Alfalfa

<400> 19  
 tgtcaaacac acacataaca cataagtgac cgtgagtcac taaatttata tatattcatc 60  
 aatctaataca aactatggag aagaaatcac tagctggctt atgcttcctc ttcttggttc 120  
 tctttgttgc acaagaaaatt gtggtgacag aagccagaac atgtgagaat ttggcagata 180  
 aatatagggg accatgcttt agtggttgtg acactcactg cacaaccaa gagaacgcag 240  
 ttagtggaag gtgtaggac gacttccgct gctgctggat cc 282